

Date: Monday, 22/09/2008 1:03:34 PM
User: Julie Lecocq

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : TUBE ASSEMBLY
Job Number : 42173	
Estimate Number : 10426	
P.O. Number :	Part Number : D3304044
This Issue : 22/09/2008 S.O. No. :	Drawing Number : D3304 REV. B
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : MACHINED PARTS	Drawing Revision : B
Previous Run : 42109	Material :
Written By :	Due Date : 29/09/2008 Qty: 10 Um: Each
Checked & Approved By : <u>JUL 08.9.22</u>	
Comment : Est: D 04.11.26 Revised Steps 7 KJ/JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M304TR0875W065	304 round tube .875 x .065w
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Comment: Qty.: 1.9469 f(s)/Unit Total: 19.4691 f(s)

Material: AISI 304/316 SS tubing 0.875" x 0.065" wall
(M304TR0.875W.065)

Batch: 1109734 mmf 08/10/31

(10)

2.0	BAND SAW	BAND SAW
-----	----------	----------



Comment: BAND SAW

1- Cut blank: 22.00" as per Dwg D3304

mmf 08/10/31

(10)

3.0	LATHE CONV.	CONVENTIONAL LATHE
-----	-------------	--------------------



Comment: COVENTIONAL LATHE

1- Cut blank: 22.00" as per Dwg D3304

2- Turn as per Dwg D3304

3- Deburr

mmf 08/10/31

(10)

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

mmf 08/10/31

(10)

5.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

08.10.03 (10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 22/09/2008 1:03:34 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 42173

Part Number: D3304044

Job Number:



Seq. #:

Machine Or Operation:

Description:

6.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

- 1- Drill as per Dwg D3304 using drill Jig D3304-T1
- 2- Form as per Dwg D3304
- 3- Cut tube to length as per Dwg D3304
- 4- Check with DT8657 JIG
- 4- Deburr

FF 09-01-08 (10)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 02/01/08 (HC)

8.0

D33048

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

Bracket

Pick: :

Qty	Part Number	Description	Batch
1	D3304-8	Bracket	B 40908

B 40908

SP 09.01.12

9.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Weld bracket as per Dwg D3304 and QSI 004

SP 09.01.13 (10X)

10.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

pl 09.01.13

(X10)

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 02/01/13 (HO)

12.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

START TIME:

8:40

OVEN TEMPERATURE:

320°

FINISH TIME:

9:10

FZ 09/01/14

(10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 22/09/2008 1:03:34 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 42173

Part Number: D3304044

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

09-01-19

X10

14.0

BLBS0016

PIP PIN



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

PIP PIN

Pick:

Qty	Part Number	Description	Batch
1	BLBS-0016	Pip Pin	M 109199

Batch

FF 09/01/19

(10)

15.0

CBL460

Loop Sleeve



Comment: Qty.: 2.0000 Each(s)/Unit Total: 20.0000 Each(s)

Loop Sleeve

Pick:

Qty	Part Number	Description	Batch
2	CBL-460	Loop Sleeve	M 109062

Batch

FF 09/01/19

(10)

16.0

CBL1240

Cable



Comment: Qty.: 1.0416 f(s)/Unit Total: 10.4160 f(s)

Cable

Pick:

Qty	Part Number	Description	Batch
12.5"	CBL-1240	Cable	M 103927

Batch

FF 09/01/19

(10)

17.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble lanyard and pip pin as per Dwg D3304

Identify as D3304-044

FF 09/01/19

(10)

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/01/19 X10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: TUBE ASSEMBLY

Job Number: 42173

Part Number: D3304044

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify with P/N and B/N as per Dwg using a permanent fine point marker, then Stock

Location: ST 188

SS 09/01/20 *(16)*

20.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/01/21 *(18)*

Job Completion



u 09.04.20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

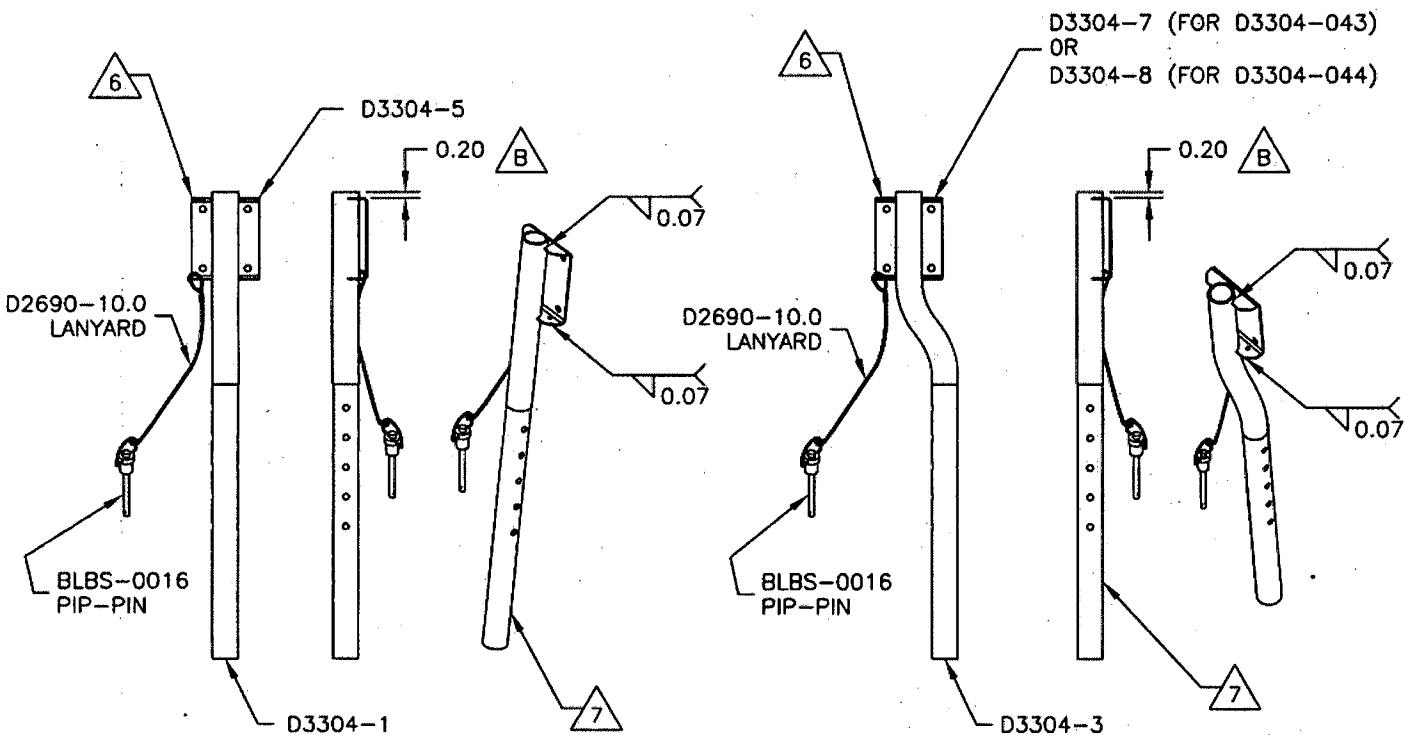
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN	RF	DRAWN BY	RF	DART AEROSPACE LTD HAMMERSBURT, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	APPROVED	<i>[Signature]</i>	DRAWING NO. D3304
DATE	05.07.15			TITLE TUBE ASSEMBLY
				SCALE 1:6
A	04.08.18			REV. B
B	05.07.15			UPDATE DIMENSIONS: ADD D3304-7/-8

RELEASED
05.08.11



D3304-041 TUBE ASSEMBLY

**D3304-044 TUBE ASSEMBLY (SHOWN)
D3304-043 OPPOSITE**

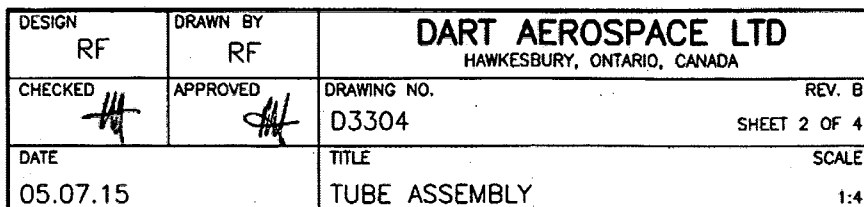
D3304-041/-043/-044 NOTES:

- 1) FINISH: POWDER COAT GREY SANDEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 2) WELD PER DART QSI 004
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) IDENTIFY AS INDICATED USING FINE POINT PERMANENT INK MARKER "TCCA-PDA, DART AEROSPACE LTD, P/N D3304-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"
- 7) IF BEING ASSEMBLED WITH D3303-041, ADD THE FOLLOWING USING A FINE POINT PERMANENT INK MARKER: "TCCA-PDA, DART AEROSPACE LTD, P/N D412-724-XXX B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA04-11"

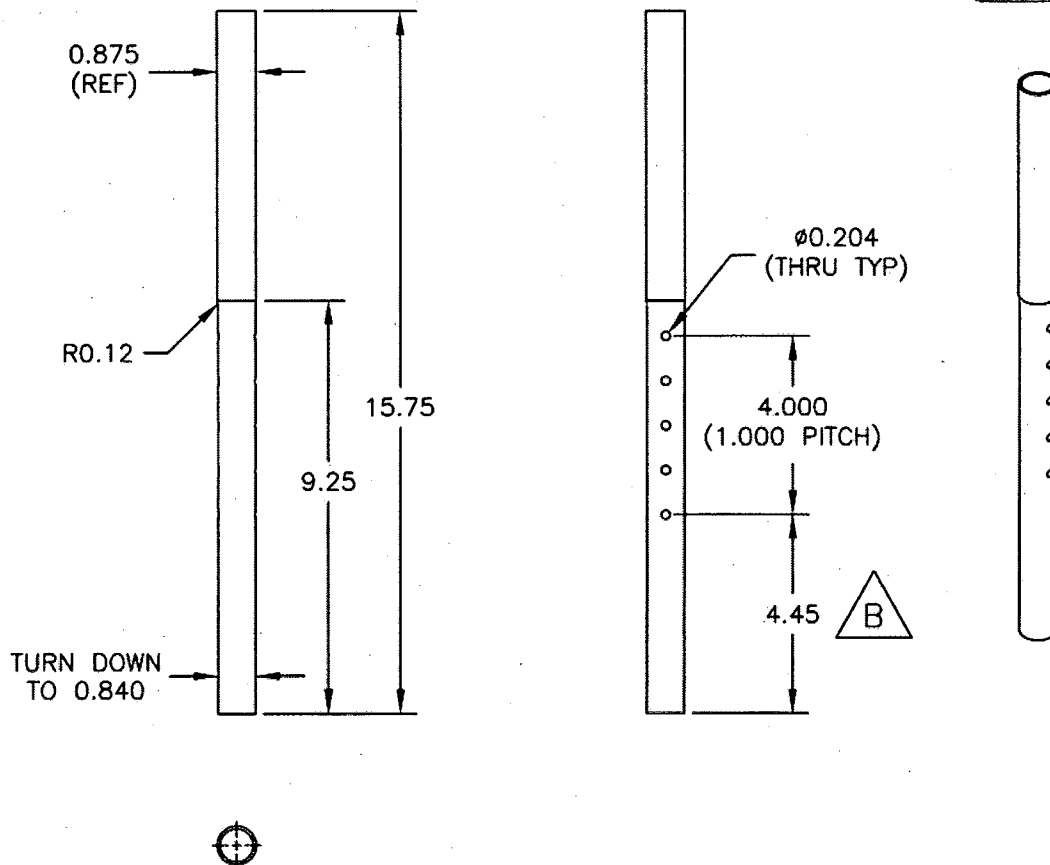
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WORK ORDER

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RELEASED
05-08-11



D3304-1 TUBE

1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE $\phi 0.875 \times 0.065$ WALL
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED

2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

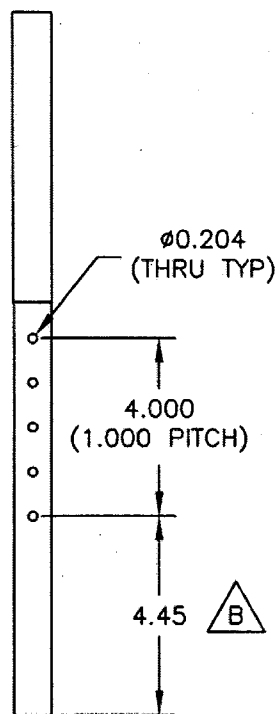
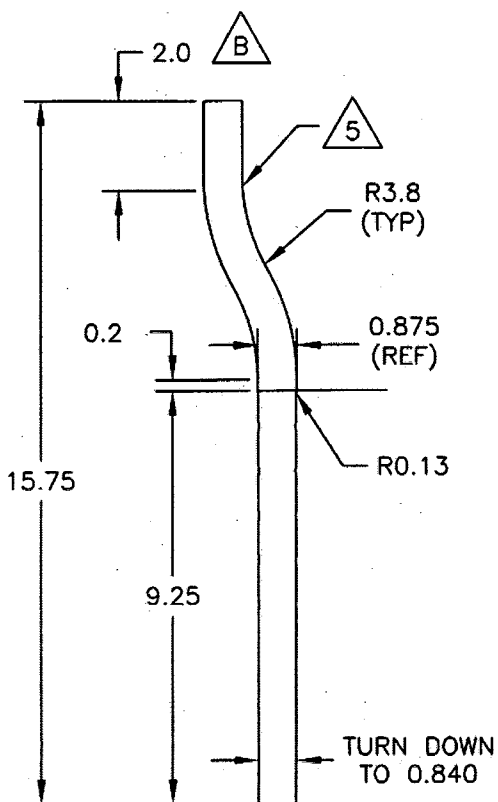
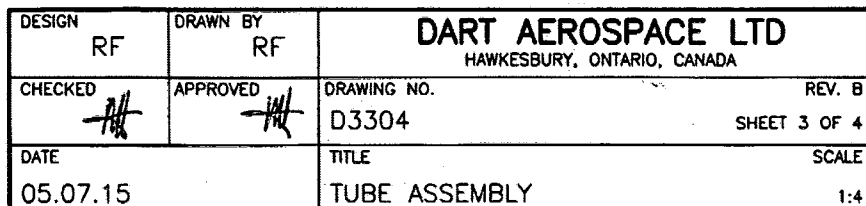
3) ALL DIMENSIONS ARE IN INCHES

4) BREAK ALL SHARP EDGES 0.005 TO 0.015

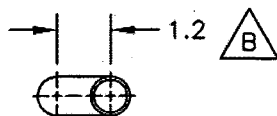
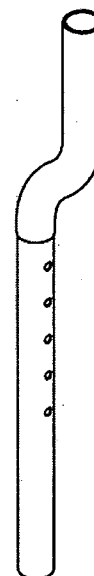
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05-08-11



D3304-3 TUBE

D3304-3 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL TUBE $\phi 0.875 \times 0.065$ WALL
(REF. DART SPEC M304TR0.875W.065) ENSURE SEAMLESS TUBE IS USED
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) BEND LINES 9.625, 13.375 DIMENSIONS

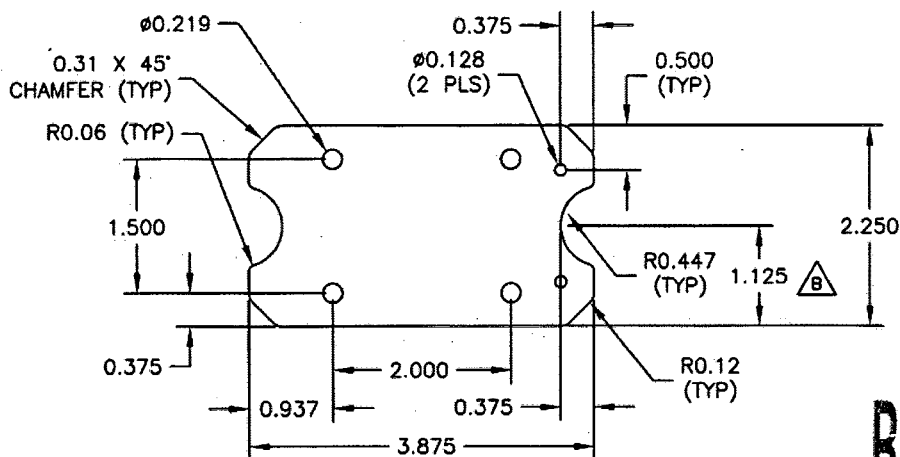
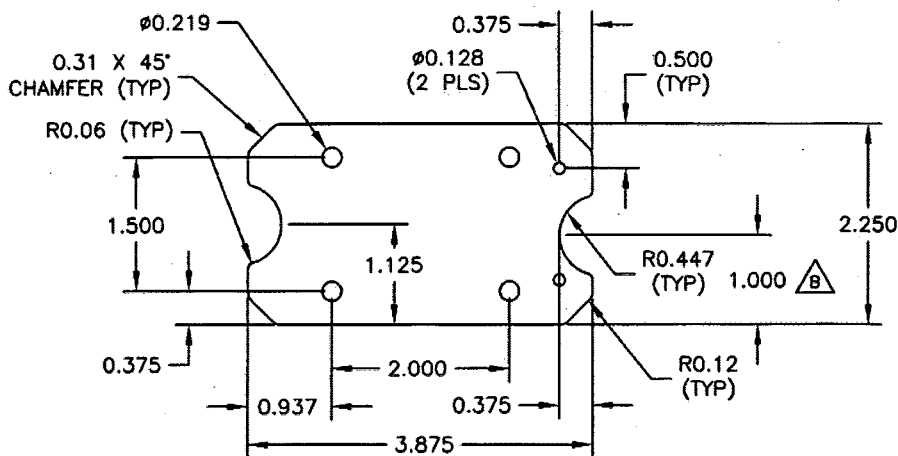
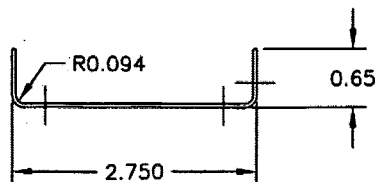
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DART

DESIGN RF	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3304	REV. B SHEET 4 OF 4
DATE 05.07.15	TITLE TUBE ASSEMBLY		SCALE 1:2

**D3304-5 FLAT PATTERN****RELEASED**
05.08.11**D3304-7/-8 FLAT PATTERN****D3304-5/-7 BRACKET
D3304-8 OPPOSITE**

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NOTES:

- 1) MATERIAL: AISI 304/316 SS 0.040 THICK SHEET (REF. DART SPEC M304S20GA)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015

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